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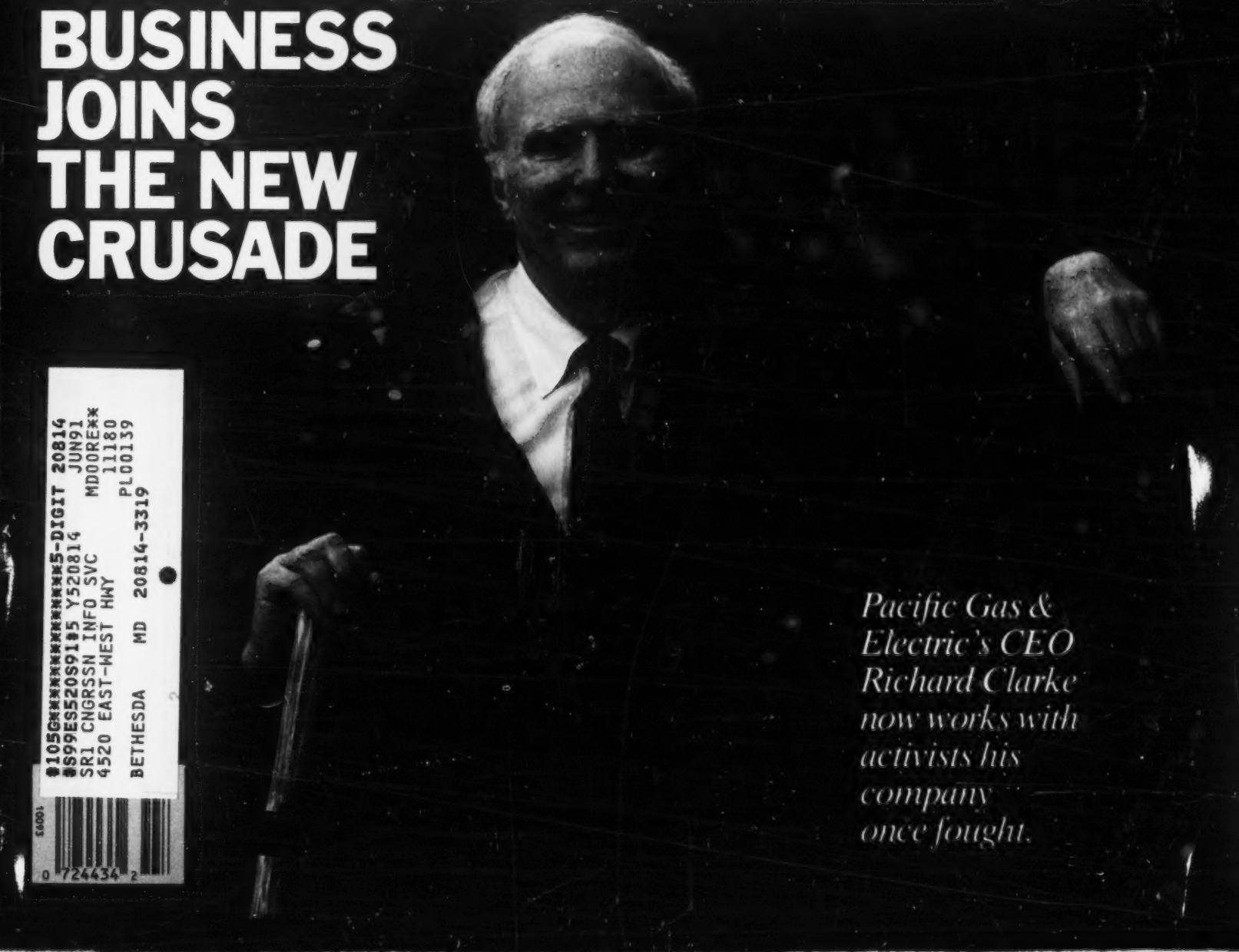
■ U.S. WINNERS IN JAPAN • IACOCCA SPEAKS • COMPUTER WARS IN THE 1990s

FEBRUARY 12, 1990 $3.50

FORTUNE

THE ENVIRONMENT

BUSINESS JOINS THE NEW CRUSADE



Pacific Gas & Electric's CEO Richard Clarke now works with activists his company once fought.

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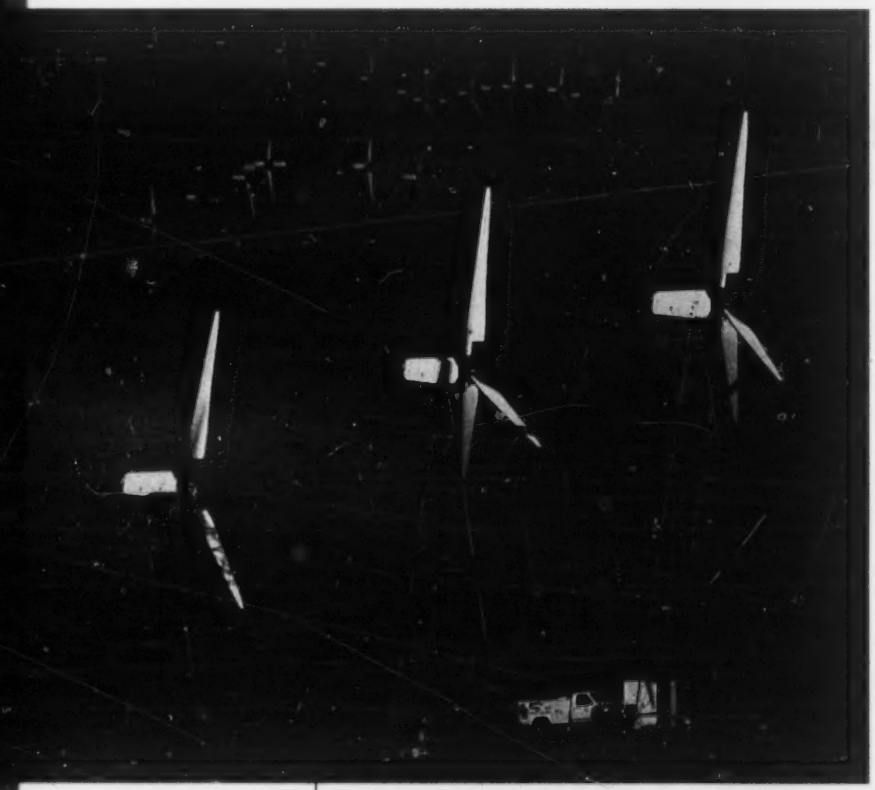

ABOVE: Wind turbines operated by U.S. Windpower in Altamont Pass, California, to produce electricity, photographed by George Steinmetz.

COVER: Chairman Richard Clarke of Pacific Gas & Electric, photographed by Blake Little—Visages.

"In the Nineties environmentalism will be the cutting edge of social reform and absolutely the most important issue for business." PAGE 44

MANAGING/Cover Story

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It is expected to be not only the biggest business issue of the 1990s but a mainstream movement of massive worldwide force. Environmentalists are moving from confrontation to the best kind of collaboration. And instead of mere compliance with government regulations, smart companies are joining in the pilgrimage toward "eco-responsibility." Farsightedness today will pay off tomorrow. *by David Kirkpatrick*

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"This industry may have hyped itself into a recession."

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"There's a feeling that anyone associated not just with cars but with American industry as a whole is some kind of dope."

PAGE 68

"What you have here is a consumer capable, willing, and able to spend."

PAGE 85

"It's mind-boggling that so many people have put so much money into something they don't understand."

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"Those little guys have built an empire over there. They have so much money it scares you."

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"It has real value in saving lives and property. I am driven to do it."

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CORPORATE PERFORMANCE

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Those down-home Stephens boys made it big in Little Rock. More ambitious now than ever, they want to bust out and—by focusing on a few fee-rich industries—be the investment bankers for middle America too. *by Christopher Knowlton*

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Call 1990 the year of the financial shape-up. Higher profits resulting from elevated prices will help companies repay debt and shore up capital spending. *by Todd May Jr.*

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FORTUNE's quarterly investment guide advises that it's no time to bail out of the stock market. On the other hand, shares are unlikely to move much higher soon. *by John J. Curran*

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The time has come for Americans to increase investment in America, and that requires more taxes for the "non-poor." *by Herbert Stein*

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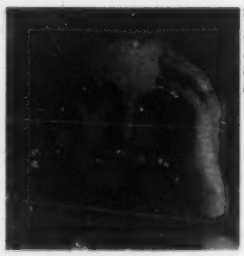
EDITOR'S DESK

PETER GRECCHI

Writer David Kirkpatrick in New York's Catskill Mountains: "Environmentalism won't fade away."

YOU DON'T HAVE to work for Exxon to know that the environmental movement can have a powerful impact on your business. Nowadays three out of four Americans tell pollsters that a company's environmental reputation affects their buying decisions. And so we sent writer David Kirkpatrick and reporter Alicia Moore to find out how business is responding.



GERRY CHOO

Reporter Alicia Moore

Kirkpatrick was telling business leaders about environmental issues even before the first Earth Day in 1970. He began to raise his ecological consciousness as a Boy Scout, when he organized a project to remove litter from highways near his Connecticut home. He and his fellow Scouts calculated how much trash they scooped up per mile of road, then passed out fliers at the local commuter train station to call attention to the problem.

Addressing a considerably wider audience of business leaders now, Kirkpatrick sees much to applaud. Says he: "A lot of corporations are taking great pains to understand and accommodate environmental concerns." In place of antagonism, he found constructive—and often profitable—cooperation between business and environmentalists. One sign that environmental awareness has taken deep root: The corporations that are leaders—like Pacific Gas & Electric, McDonald's, 3M, and Du Pont, among many others—are the first to acknowledge how much more they need to do to help the great cleanup.

As for those companies that have so far paid scant attention to the environmental movement, Kirkpatrick warns: "Environmentalism won't fade away. It's going to get bigger. It's going to get more important to your employees and your customers. And more important to you, both professionally and, probably, personally."

As you may know, Time Inc. Magazines will launch a new magazine in February titled *Entertainment Weekly*. Facing page 72 is a supplement that will give you an idea of what it will be like.

Marshall Loeb

MANAGING EDITOR

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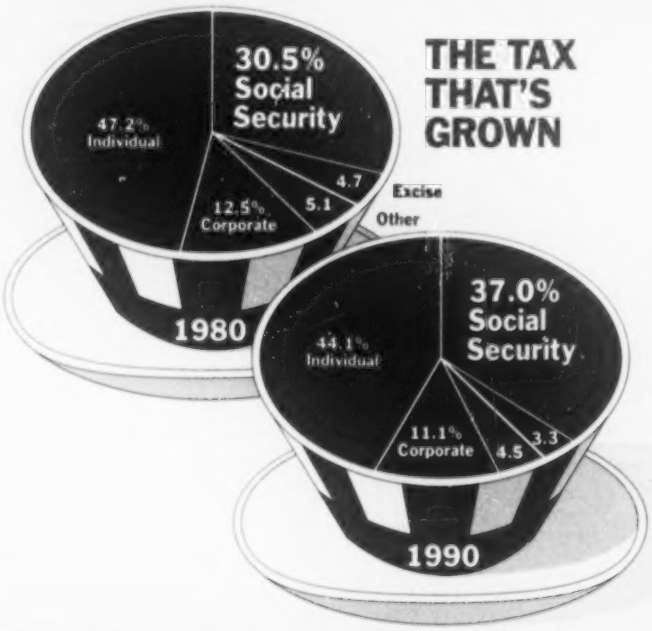


BUSH FACES A TAX STEAMROLLER

■ Despite White House efforts to quash New York Democratic Senator Daniel Patrick Moynihan's plan to slash payroll taxes by $62 billion over two years, support is spreading like wildfire on both sides of the political divide. Among the early enthusiasts: the conservative Heritage Foundation, the neoliberal Progressive Policy Institute, the U.S. Chamber of Commerce, and the National Federation of Independent Business. Says business lobbyist Dirk Van Dongen: "I see all the makings of a steamroller."

USA GIBSON/BLACK STAR

Moynihan: truth serum

To Democrats, Moynihan's proposal smacks of sweet revenge. It recaptures for them the tax cut issue. And it puts heat on President Bush to raise other taxes elsewhere. As it is, Social Security grew faster than any other federal tax source in the past ten years (see chart). Some 80% goes to paying beneficiaries and the rest is invested in Treasury securities. Those borrowed funds then go to pay other federal bills, such as welfare and the Pentagon—not where most workers think their payroll taxes are going. Says lobbyist Daniel Flanagan, of the proposal by his longtime friend the Senator: "It's political truth serum at its best."

Many liberals also hope Moynihan's initiative will lead to a more progressive income tax system. Some moderates, like Democratic Senator Ernest Hollings of South Carolina, see an opening to push a value-added tax. Conservatives want deeper spending cuts and some privatization of Social Security.

Critics fear the most likely outcome would be bigger deficits—a dismal prospect—and higher income taxes. Warns Paul Huard, vice president of the National Association of Manufacturers: "If the Democrats want to give tax relief to the bulk of the wage-earning population and the President wants a capital gains cut, he'll probably have to eat rate increases elsewhere." This time the Democrats could come out on top. **– Ann Reilly Dowd**

SHADES OF ABE IN JAPAN

■ One of the trendiest magazines in Japan right now: *Woody Life*, a quarterly devoted to buying, decorating, adding to, and doing over log cabins, themselves one of the country's hottest fads. There are Abe Lincoln Levittowns in new resort developments, year-round Santa Claus villages of log cabin bed-and-breakfast establishments, even a log-built Buddhist temple. Log cabin penthouses could very well be next. A Tokyo entrepreneur is selling kits for log homes not much bigger than a Toyota to sit atop high-rises.

Sales of log cabins have almost doubled in each of the past five years to some $450 million annually. More than half come from the U.S., Canada, and Scandinavia. The buyers are Tokyo apartment dwellers, including yuppies, who, like their U.S. counterparts, tour city streets in four-wheel-drive trucks. Says importer Kotaro Noda: "Land prices are so high in the city that people have given up ever having a house. So they buy a bit of land in the countryside and a log cabin to put on it." Noda gets his cabins from **Asperline** of Lock Haven, Pennsylvania.

A basic four-room cabin sells for $100,000 to $200,000. A lot measuring one-tenth of an acre in one of the resort communities a five-hour drive from Tokyo costs an additional $50,000. Modern plumbing and electricity are installed free.

Assembling the cabins has sparked another import: carpenters, including 20 Americans. Japan can't supply the demand. **– Susan Moffat**

The Haga family at their $103,000 log cabin in the mountains

TAKEHIKO YUZAWA

BY JOHN J. CURRAN

THE BEST INVESTMENT STRATEGY FOR A SLOW-GROWTH ECONOMY

Don't sell your shares, but shop carefully, says FORTUNE's quarterly investment guide.

■ As the economy's record expansion lengthens, so does the list of reasons to bail out of the stock market. The specter of recession looms larger, the junk-bond market is crumbling, and interest rates threaten to rise. Might it be wise to sell your shares now and stash that cash in a supersafe money market account?

No. The only time to reach for the rip-cord is when stock prices climb to dangerously overvalued heights, as they did in 1987. We're nowhere near that level today. The price/earnings multiple of Standard & Poor's 500-stock index stands at 14—above the market's historical norm of 13, but well below the P/E of 22 that prevailed in August 1987.

Nor are other critical gauges flashing red. Consider dividends. At 3.3% the yield on stocks is low, but not dangerously so. Typically the market doesn't peak until the dividend yield drops below 3%. Sure, a severe recession could send stocks into a nose dive, even if they weren't overvalued. But most forecasters, including FORTUNE, see growth ahead, albeit slow.

That doesn't mean shares are likely to move much higher soon. Since the summer the stock market has been unable to sustain major gains and quick to fall on the slightest bad news (see chart). That kind of volatility could continue well into 1990.

The reason is simple: The engines that powered the big climb in stock prices are now sputtering. In 1988 earnings per share for companies in the S&P 500 rose more than 35%. In 1989, however, those gains all but disappeared. FORTUNE does expect corporate profits, which declined slightly in 1989, to average higher this year (see Forecast). But since that improvement will probably be accompanied by higher inflation—and thus higher interest rates—stock prices may get no lift.

In the 1980s the prospect of restructuring lifted many securities far above the price they could fetch on the promise of higher earnings alone. Analysts at Goldman Sachs attribute 20% of the market's 112% rise over the past six years to a shrinkage in the supply of shares caused by takeovers, stock buybacks, and LBOs.

But U.S. corporations should be less active buyers in 1990. For one thing, would-be acquirers can no longer raise investment capital at the drop of a junk bond. More importantly, they no longer view stocks as temptingly cheap. Most bargain hunters start by comparing a company's share price with what they calculate its assets would bring if sold separately in the marketplace, a measure known as replacement book val-

WHAT THE HECK DO I DO NOW?

FOUR BY FIVE

STOCKS

■ **Shed a few pricey, recession-proof shares and seek out bargains in basic industries, such as aluminum.**

IMAGE BANK

BONDS

■ **Five- to seven-year Treasuries and pre-refunded munis are a buy. Even some junk—no kidding—looks good.**

FOUR BY FIVE

REAL ESTATE

■ **The bear still prowls this market. Focus on real estate investment trusts that sell at a discount to asset value.**

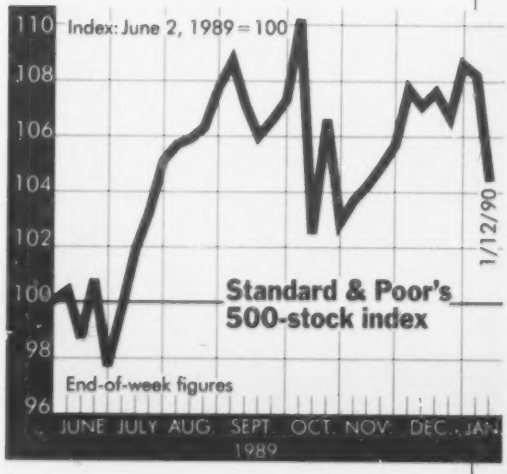
LOUIS PSHOYOS

COMMODITIES

■ **Gold won't rise much unless inflation gets scary. Slumping auto sales could take the shine off platinum.**

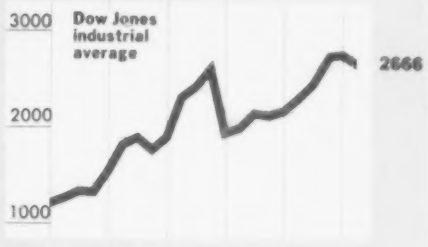
THE ADVANCE STALLS OUT

Weighed down by disappointing earnings, stocks have been unable to stay consistently aloft. Analysts expect the turbulence to continue.

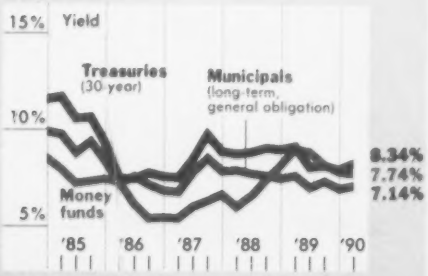


STATE OF THE MARKETS

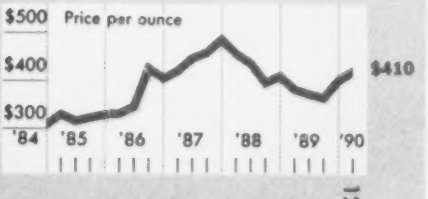
Stocks



Bonds



Gold



12/21

This is Fortune's fortnightly look at the major markets of the past five years

CHARTS SHOW END-OF-QUARTER FIGURES.

BASED ON EARNINGS FOR THE LATEST FOUR QUARTERS.

SOURCES: STANDARD & POOR'S, BOND BUYER, DONOGHUE'S MONEY FUND REPORT, COMMODITY EXCHANGE

ue. In 1982, at the dawn of the bull market, the average stock sold for less than half replacement book value—an irresistible temptation for a raider. Now, however, many prices equal replacement book value.

Since the fundamentals are merely mediocre rather than bad, a contrarian could view an oversupply of bears as a buying opportunity. The rule of thumb at Investors Intelligence, which polls investment advisers, is that when the percentage of bulls sinks below 40%, a rally is in the offing. But in its latest survey more than 46% of the pros still called themselves bullish.

So which types of stocks will fare best in this sort of choppy weather? The least likely winners will be 1989's highfliers—big-capitalization stocks in recession-resistant industries such as cosmetics, drugs, and tobacco. That group is already richly priced.

Look instead among the crowd that underperformed last year—cyclically sensitive industries such as paper and aluminum. Since these are the companies that would be damaged the most if a full-blown recession hit, most investors still prefer to pass them by. But the bold can find bargains. Says Steven Einhorn, an investment strategist at Goldman Sachs: "The recovery in these stocks may still be months off, but on a value basis, they are very attractive." Among his most promising picks: **Alcoa Aluminum**, which sells at a very low multiple.

You should probably avoid energy stocks, whose prices were pumped up more than 30% by rising crude prices last year. According to a recent study by Sanford Bernstein, the shares of oil companies already reflect investor expectations that prices will soon hit $25 per barrel. But in mid-January the price was still stuck around $22.

America's growing appetite for energy imports could produce a few investment opportunities. Thomas Sweeney, portfolio manager of Fidelity's Capital Appreciation fund, believes increased demand for oil imports will fuel a sharp run-up in the value of tankers. Says he: "You ain't seen nothin' until you've seen a bull market in oil tankers." Sweeney points out that while demand for oil tankers has been growing at 10% a year, supply has been increasing at less than 3%. He likes **OMI Corp.**, which owns a fleet. The stock sells at $10 a share, but Sweeney thinks the ships alone are worth $16. He also likes **Overseas Shipholding Group**. The stock sells at $23, but the fleet's value is about $35 a share.

Here's a final fear play: financial companies. With investors anxious about bank write-offs of Third World debt, the S&L crisis, and rising interest rates, these are among the cheapest stocks around. The courageous can find attractive buys. Julian Robertson, head of Tiger Management, a New York hedge fund, has plowed money into **First Financial**, a closed-end mutual fund traded on the New York Stock Exchange. The fund's portfolio includes only the very best savings and loans. Says Robertson: "Their thrifts are small, well capitalized, and secure." He believes that the stocks of high-quality thrifts have been undeservedly punished and will recover.

Such bets may seem offbeat. But in the uncertain environment of 1990, it may take out-of-the-way stocks to turn a profit. Robertson has certainly done well by being different. Last year his fund was up 62%.

What follows is a guide to the other principal markets.

■ **BONDS.** In 1989 the average long-term bond provided a satisfying total return of 14%. Don't expect to repeat that feast in 1990. Yields on most bonds are down sharply. Prices, which fall when interest rates rise, could suffer later in the year if rates edge up, as FORTUNE expects.

To prosper, investors will need to be more savvy about which bonds they buy. Among Treasuries, the best bet these days is intermediate maturities of five to seven years, which yield about 8%. These bonds yield almost as much as longer-maturity Treasuries, but they are far less vulnerable to an upward spike in interest rates.

If you pay taxes—and except for pension funds, most folks do—the best pickings are in the municipal patch. Says Gary Coburn, head of the fixed-income department at the Putnam Cos.: "Without doubt, the municipal market is the most attractive of any bond sector." A high-grade general-obligation municipal bond now yields about 7.1%. While Treasuries of a similar maturity yield 8.4%, their after-tax payoff for someone in the 28% bracket is only 6.1%, a full percentage point less than munis.

continued

REPORTER ASSOCIATES *Joshua Mendes, Karen Nickel, and Ellen Schultz*

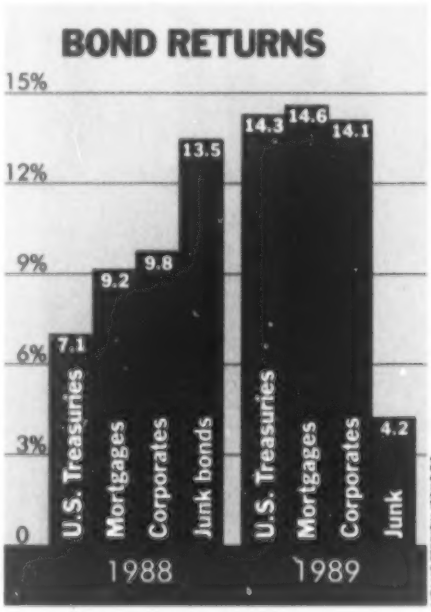
Aaron Gurwitz, a bond portfolio strategist at Goldman Sachs, is a big fan of pre-refunded munis. These are bonds that the issuing city or town wishes to retire but can't because the bond's covenants generally forbid it to do so before a specified date. As an alternative, the issuer sets aside a sufficient amount of Treasury bonds to meet all principal and interest payments on the outstanding muni. For investors that means an opportunity to buy tax-free bonds with the gilt-edged security of Treasuries. Long-term pre-refunded munis are currently yielding 6.4%.

Prices in the junk market have been battered lately by a series of highly publicized corporate bond defaults. The total in 1989 amounted to $11.7 billion, according to the Bond Investors Association. That's a 136% increase over 1988. Such scary statistics have sent junk yields soaring. First Boston's index of junk bonds shows that the spread between their yields and Treasuries has widened to nearly eight percentage points—the biggest ever recorded. Should an aggressive investor jump at that gap? Yes, but carefully, says Fred Quirsfeld, portfolio manager of the IDS Bond Fund: "I don't know when you'll realize it, but for someone with a longer-term time horizon, there is clearly value in the junk market."

While junk-bond mutual funds provide diversity, the risk persists that they could be hit by massive redemptions, which would hurt returns. Experts advise those daring enough to play to look for higher-quality individual bonds. Quirsfeld likes **American Standard** 12 7/8% bonds due 2000, which yield 12.5%, and **Masco** 10% bonds due 1995, which yield 13.4%. Robert Rodriguez, portfolio manager of the FPA New Income fund, is snapping up **Storer Communications** zero-coupon bonds due in December 1993. The bond yields 11.75%.

■ **REAL ESTATE.** Much of the U.S. property market remains firmly in the grip of the bear. Worst squeezed is the office sector, where overcapacity and weak demand—the national vacancy rate is nearly 16%—have actually produced falling prices.

Even in the best of times real estate investors should be wary of excessive fees that can crimp returns. That rules out most limited partnerships, whose start-up and management fees can snare up to 20% of your initial investment. For most people the best way to buy into bricks and mortar is through a broad list of real estate investment trusts that trade on the nation's stock exchanges. REITs offer a diversified portfolio of actively managed real estate but come with no start-up costs and only modest management fees. Like limited partnerships, these vehicles offer dividends that escape double taxation since they pay no corporate taxes. But REITs also offer liquidity, which most limited partnerships do not. At recent prices REITs were averaging an 8.5% yield.



A FLIGHT TO QUALITY

Junk bonds ruled in 1988. But defaults in 1989 hammered returns and triggered a giant sell-off.

Though investors tend to select REITs solely on the basis of yield and P/E, analysts maintain that their real value is their underlying assets. Because the market is so weak, many REIT shares have recently begun selling at below asset value, creating a rare buying opportunity. Says Michael Kirby, a principal with Green Street Advisors, a real estate research firm in Newport Beach, California: "The discounts to asset value today are as big as we've seen in the last couple of years."

One of Kirby's favorites is **United Dominion Realty**, which operates apartments and small shopping centers across the Southeast, from Virginia to Georgia. The shares yield 7.1% and trade at a 10% discount to the underlying value of the real estate. He is also high on **New Plan Realty**. Though its portfolio is chock-full of properties in the depressed Northeast, Kirby believes New Plan's strategy of buying run-down shopping centers and fixing them up will generate strong earnings, even in a weak market. It currently yields 5.9%.

Texas would seem the last place to buy real estate. Of the 30,000 properties that must be disposed of by Resolution Trust Co., more than half are in the Lone Star State. But **Weingarten Realty Investors**, a REIT that invests heavily in Texas property, has been earning splendid returns even through the toughest times. Analysts believe that as the Texas economy slowly recovers, Weingarten's shares will keep rising. In the meantime, the shares yield a generous 6.1%.

■ **COMMODITIES.** Fueled by an uptick in inflation and continuing tumult in the Communist bloc, bullion prices have jumped 16% since October. Reflecting expectations of even higher prices, the shares of gold-mining companies have gone up even higher. After a long silence the gold bugs are once again chirping loudly.

Don't listen. While analysts are mildly optimistic on the outlook for gold prices, most remain convinced that without a frightening inflationary spiral—a prediction only the buggiest believe—gold's rise will be short-lived. Reach for the Raid.

The bull run in platinum prices, which began in 1985, may now be over. Platinum is a key ingredient in the catalytic converters used to purify auto emissions. With auto sales slumping, platinum sales and prices should drop as well. Jeffrey Christian, a managing director at CPM Group, a commodities research firm, thinks platinum's price could fall from $500 to $460 by this spring. Even if you share that conviction, however, analysts advise against the treacherous strategy of selling short. Says Christian: "Shorting platinum is like playing field hockey with a dinosaur—the players are big, and you're likely to get bruised." F

ENVIRONMENTALISM:

It may be the biggest business issue of the 1990s. Here's how some smart companies are tackling it. ■ *by David Kirkpatrick*

TREND SPOTTERS and forward thinkers agree that the Nineties will be the Earth Decade and that environmentalism will be a movement of massive worldwide force. How massive? Listen to Gary Miller, a public policy expert at Washington University in St. Louis: "In the Nineties environmentalism will be the cutting edge of social reform and absolutely the most important issue for business." Futurist Edith Weiner of the Manhattan management consulting firm Weiner Edrich Brown concurs: "Environmentalism will be the next major political idea, just as conservatism and liberalism have been in the past."

The smartest companies are not just facing this thunderous music, they're singing along. Consider:

■ Du Pont is pulling out of a $750-million-a-year business because it may—just may—harm the earth's atmosphere.

■ McDonald's, which produces hundreds of millions of pounds of paper and plastic waste annually, has become a crusading proponent of recycling, and aims to become one of America's leading educators about environmental issues.

■ 3M is investing in myriad pollution controls for its manufacturing facilities beyond what the law requires.

■ Procter & Gamble and other smart marketers are moving to cast their products in an environmentally friendly light (see box).

■ Pacific Gas & Electric teams up with environmental groups—some of them outfits it used to fight—to do joint projects, such as a $10 million study of energy efficiency.

"The 1990s will be the decade of the environment." That's not the chief druid of Greenpeace talking, but rather the new president of the Petroleum Marketers Association of America in a November speech. Mere corporate ecobabble intended to placate the latest group of special-interest loonies? Any company that thinks that way will probably regret it. Exxon provides the obvious if inadvertent example of the bitter costs of seeming unconcerned about the environment. Not long after the March accident in Valdez, Alaska, 41% of Americans were angry enough to say they'd seriously consider boycotting the company. Bill McInturff senior researcher at the Wirthlin Group, a polling firm with close Republican ties,

Wal-Mart has asked all its suppliers for more recycled or recyclable products, which it trumpets loudly.

Nudged by the Environmental Defense Fund, Pacific Gas &

THE NEW CRUSADE

Electric dropped plans for coal and nuclear plants, now buys some power from these California windmills, and courts environmentalists.

PHOTOGRAPH BY GEORGE STEINMETZ

blames Exxon not for the accident but for its response: "It was a disservice to American industry the way the pullout last fall was handled. Exxon seemed satisfied with what they had accomplished. It hardened the notion that business is just interested in making a buck and doesn't give a damn. It flabbergasts me that a company that size doesn't get the drift." Even spending over $1 billion on cleanup hasn't salvaged the oil giant's reputation.

Such salvage won't get any easier. The New York Times/CBS News poll regularly asks the public if "protecting the environment is so important that requirements and standards cannot be too high, and continuing environmental improvements must be made regardless of cost." In September 1981, 45% agreed and 42% disagreed with that plainly intemperate statement. Last June, 79% agreed and only 18% disagreed. For the first time, liberals and conservatives, Democrats and Republicans, profess concern for the environment in roughly equal numbers.

Environmentalism is likely to continue as an issue at the forefront for several reasons. One is demographic. Says futurist Weiner: "The combination of baby-boomers having children and a significant part of the population moving into senior years means an enormous percentage of the population is taking the attitude of stewardship." The Gallup Organization reports that 49% of people over 50 feel strong identification with environmentalism, compared with 39% of those between 30 and 49 and 31% of those under 30. This reverses the pattern that prevailed during the country's last upsurge in environmentalism 20 years ago.

The new crusade will be different from the old in other ways as well. Miller of Washington University explains, "In the Sixties, environmentalism was the tail end of a period of social activism that was primarily based on civil rights and the antiwar movement," while now it's a movement of its own. The players are different. Far fewer activists of the 1990s will be embittered, scruffy, antibusiness street fighters.

In an innovative program, last fall McDonald's began asking customers at 100 New England outlets (this one is in Vermont) to dispose separately of polystyrene packaging—it's recyclable.

MARIANNE BARCELLONA (3)

AS AN EXAMPLE of the new breed, consider Allen Hershkowitz, who freely drops the names of his CEO acquaintances. As a solid-waste-disposal expert at the litigious Natural Resources Defense Council, Hershkowitz has won many legal battles with business. Now high-ranking executives of major companies regularly make the pilgrimage to his office in the elegant, airy, and amply funded New York City headquarters of NRDC, coming to him lest he go after them. As he explains, "They come in here to see what they've got to cover their asses on." The cocky 34-year-old Ph.D., who serves as an adviser to banks and Shearson Lehman Hutton, among others, elaborates, "My primary motivation is environmental protection. And if it costs more, so be it. If Procter & Gamble can't live with that, somebody else will. But I'll tell you, Procter & Gamble is trying hard to live with it."

Still, for all his militancy, Hershkowitz is no fanatic or utopian. He understands that a perfect world can't be achieved and doesn't hesitate to talk of trade-offs: "Hey, civilization has its costs. We're trying to reduce them, but we can't eliminate them." Environmentalists of this stripe will increasingly

REPORTER ASSOCIATE *Alicia Hills Moore*

show up even within companies. William Bishop, Procter & Gamble's top environmental scientist, was an organizer of Earth Day in 1970 and is a member of the Sierra Club. One of his chief deputies belongs to Greenpeace.

Eager to work with business, many environmentalists are moving from confrontation to the best kind of collaboration. In September an ad hoc combination of institutional investors controlling $150 billion of assets (including representatives of public pension funds) and environmental groups promulgated the Valdez Principles, named for the year's most catalytic environmental accident. The principles ask companies to reduce waste, use resources prudently, market safe products, and take responsibility for past harm. They also call for an environmentalist on each corporate board and an annual public audit of a company's environmental progress.

The group asked corporations to subscribe to the principles, with the implicit suggestion that investments could eventually be contingent on compliance. Companies already engaged in friendly discussions included Du Pont, specialty-chemical maker H.B. Fuller, and Polaroid, among others.

Earth Day 1990, scheduled for April 22, the 20th anniversary of the first such event, is becoming a veritable biz-fest. "We're really interested in working with companies that have a good record," says Earth Day Chairman Denis Hayes, who predicts that 100 million people will take part one way or another. Apple Computer and Hewlett-Packard have donated equipment. Shaklee, the personal and household products company, paid $50,000 to be the first official corporate sponsor. Even the Chemical Manufacturers Association is getting in on the act, preparing a list of 101 ways its members can participate. The more than 1,000 Earth Day affiliate groups in 120 countries propose to shake up politicians worldwide and launch a decade of activism.

THE MESSAGE that leading environmentalists are sending, and progressive companies are receiving, is that eco-responsibility will be good for business. Says Gray Davis, California's state controller, who helped draft the Valdez Principles and who sits on the boards of two public pension funds with total assets of $90 billion: "Given the increasing regulation and public concern, there's no question that companies will eventually have to change their ways. The first kid on the block to embrace these principles will increase market share and profit substantially."

While that's hard to prove, few dispute that farsightedness today will pay off tomorrow. Environmental regulations will continue to be tightened. Says Lester Lave, a professor of engineering and public policy at the Carnegie-Mellon business school: "If you build a plant that just squeaks past now, you'll have to pay much more money down the line."

That is partly why Minnesota Mining & Manufacturing is going beyond the call of duty and government deadlines. For example, new federal regulations require replacement or improvement by 1998 of underground storage tanks for liquids and gases. The company decided to comply by 1992 instead, and to have all tanks worldwide in compliance by 1993. Cost: more than $80 million. "Regulations are about to overwhelm us," says Robert Bringer, 3M staff vice president for environmental engineering and pollution control. "The only way we see to deal with that is to reduce the number of materials we emit that trigger regulation."

Chastened in part by Exxon's example, some corporate bosses don't see red when faced with green activists—they see themselves. One of Edgar Woolard's first acts after becoming CEO of Du Pont in April (just after the Valdez spill) was to deliver a speech in London entitled—and calling for—"Corporate Environmentalism." Said the top man of the chemical giant in remarks subsequently reprinted by the company on recycled paper: "Avoiding

HOW ONE INVESTMENT FIRM RATES 25 COMPANIES ON THE ENVIRONMENT

INDUSTRY	COMPANY	RATING (1 = best, 5 = worst)	
CHEMICALS	H.B. Fuller	1.5	Environmental initiatives in HQ construction
	Monsanto	4.0	Pesticides, toxic dumps, offset by clean-air efforts
	W.R. Grace	5.0	Toxic dumps, several environmental lawsuits
COMPUTERS	Apple Computer	1.5	Recycles, lets environmental groups solicit on site
	IBM	3.5	High CFC emissions
ELECTRIC UTILITIES	Louisville Gas & Electric	2.0	Leader in installing smokestack scrubbers
	Southern	5.0	High SO_2 emissions contribute to acid rain
ENVIRONMENTAL SERVICES	Safety-Kleen	2.5	Leading recycler of solvents and motor oil
	Wellman	2.5	Leading recycler of plastic
	Browning-Ferris	5.0	Numerous landfill violations
	Waste Management	5.0	Numerous landfill violations
FOREST PRODUCTS	Jefferson Smurfit	2.5	Leading recycler of paper
	Louisiana-Pacific	4.0	Air and water pollution violations
NATURAL GAS	Consolidated Natural Gas	2.5	Promotes new, clean-burning technologies
	Panhandle Eastern	4.0	Substantial PCB pollution problems
OIL	Amoco	2.0	Strong waste-minimization program
	Exxon	5.0	Poor response to Valdez oil spill
PHOTO EQUIPMENT	Polaroid	2.5	Strong waste-minimization program
	Eastman Kodak	4.0	Substantial leaks in Rochester sites
STEEL	Nucor	2.0	State-of-the-art mills, uses recycled metals
	Bethlehem Steel	4.0	Old mills with numerous environmental problems
OTHER	Wal-Mart Stores	2.0	Promotes environmental products, recycling
	Borden	4.0	Toxic dumps, air and water complaints
	General Electric	4.0	Major PCB cleanup problems
	General Motors	5.0	Toxic dumps, air and water problems

Franklin Research & Development of Boston, which calls itself a "socially responsible" investment firm and manages $200 million, bases these ratings on several factors. Each company starts with a score of 3, which then rises or falls based on corporate actions that harm or help the environment.

BLAKE LITTLE—VISAGES

PG&E's Clarke: He has an environmentalist on the board.

environmental incidents remains the single greatest imperative facing industry today." He bemoaned industry's lack of credibility on the issue and called for spending more money than "mere compliance" with laws would require.

Woolard now meets at least once a month with leading environmentalists, and his company is taking what seem dramatic steps demonstrating its concern. In March 1988, Du Pont announced that, based on new evidence that chlorofluorocarbons (CFCs) might be seriously depleting the Earth's ozone layer, it would voluntarily suspend all production of CFCs—a $750-million-a-year business in which it leads the industry—by 2000, or sooner if possible. The company has already spent $170 million developing safe compounds to replace CFCs in cleaning, refrigeration, and other uses. It is prepared to spend as much as $1 billion on the best replacements discovered so far, but since even these compounds may slightly deplete the ozone layer, Du Pont wants guarantees that new plants will be allowed to function long enough to recoup the investment. Says Woolard: "In my opinion it has not been proven that CFCs are harmful to the ozone, but there is a fairly good probability, and we have to deal with that."

Evidence of increased environmental sensitivity is everywhere in Du Pont, perhaps partly because that's now one of the criteria in determining managers' compensation. The company voluntarily spends an estimated $50 million each year on environmental projects beyond what the law requires, like the $15 million it spent at a Texas plant to reduce the risk of dangerous gases being released. Du Pont's ultimate goal is zero pollution in all activities. While Woolard is certain this new priority will strengthen the company, he admits profits will suffer from the effort over the next few years.

Du Pont also sees business opportunity in environmental concern. Building on expertise gained in cleaning up its own plants, the company announced in early December the formation of a safety and environmental resources division to help industrial customers clean up toxic wastes. Management forecasts potential annual revenues of $1 billion from the new business by 2000. Defensive actions sometimes pay off too. Faced with protests over the ocean dumping of acid iron salts off the coast of New Jersey, Du Pont halted a practice its scientists were convinced was harmless. It then discovered the salts could be sold to water-treatment plants.

At 3M, CEO Allen Jacobson directs that pollution-control installations be judged by their environmental benefit, not only by return on investment. But 3M too has learned that environmental controls often lead to cost savings. The company specializes in coated products (such as videotapes and pressure-sensitive tapes) whose manufacture has long emitted significant pollutants. It has saved well over $1 billion since 1975 through a program called Pollution Prevention Pays. The program spotlights projects that reduce pollution as well as save money. Solvents that were once emitted to the atmosphere may be recycled and reused, or a volatile solvent may be replaced by a water-based one, eliminating the need for costly air pollution control equipment.

Du Pont's Woolard: He's making zero pollution a company goal.

JOHN S. ABBOTT

If, as many predict, alliances between environmentalists and corporations are the wave of the future, Pacific Gas & Electric has already learned to surf. But it took practice. In the mid-1970s economists and lawyers from the Environmental Defense Fund started fighting the company's plan to build several giant coal and nuclear power plants. The environmentalists proposed instead a combination of smaller-scale generating facilities like windmills or cogeneration plants on the sites of regional businesses, combined with aggressive conservation measures.

THE BIG PLANTS were never built. A persistent EDF campaign of pressure at utility commission meetings and sophisticated television advertising came just as the price of fossil fuels started climbing dramatically. PG&E's resistance gradually melted. The company took several steps to conserve energy, and much of the rest of the electric industry eventually followed PG&E's lead. Says EDF attorney David Roe: "We spoke to them in their own language. We used their type of computer models, their financial analysis sheets. We weren't saying, do what's good for the environment and it will cripple you. We were saying, it will save you economically."

While the company says it would have eventually taken most of the actions EDF proposed anyway, it acknowledges that the give-and-take was beneficial. Says PG&E attorney Kermit Kubitz: "I think both sides may have been closer together than either side realized at the beginning." Echoes Roe: "The basic point is, there's usually a lot more common ground than either side realizes."

Today PG&E has a policy of aggressively seeking discussions and joint projects with any willing environmental group, even those that have opposed the company in the past. Its board includes Melvin Lane, a well-known West Coast environmentalist. In November, PG&E announced a $10 million study, conducted in conjunction

with the Natural Resources Defense Council, among others, to improve efficiency in the use of electricity. And that computer model EDF developed to demonstrate the relationships between conservation and electricity costs—PG&E now rents it from EDF for about $18,000 a year.

PG&E chief Richard Clarke believes that on the rocky coast of Northern California, where quality of life has long been a paramount public issue, he has seen America's environmental mood foreshadowed. A few guiding principles Clarke has learned:

■ "Make environmental considerations and concerns part of any decision you make, right from the beginning. Don't think of it as something extra you throw in the pot."

■ "Develop an internal cadre of environmentalists. They have minds of their own and will advocate things. They may not get everything they want, but there certainly are occasions where they prevail."

■ "Have a continuing dialogue with environmental groups."

■ "Put someone on your board to help you factor in environmental issues."

■ "Do these things because they are the right thing to do, not because somebody forces you to do them."

McDonald's might add another principle

LEADING THE CRUSADE INTO CONSUMER MARKETING

There's money to be made catering to the public's mounting concern for the environment, as astute consumer marketers are beginning to learn. A July 1989 survey conducted for the Michael Peters Group, which provides consulting on products and design, found that 77% of Americans say a company's environmental reputation affects what they buy. Observes Howard Marder of the Hill & Knowlton public relations firm: "For the past 20 years the environmental movement in the U.S. has focused on cleaning up damage. Almost overnight the focus is changing to prevention. Marketers had nothing to sell before, but now they can say, 'Be part of the solution by buying our product.' " Among those now making just that pitch in the U.S.: Arco, Colgate-Palmolive, Lever Brothers, 3M, Procter & Gamble, and Sunoco.

ANDY FREEBERG

The Body Shop sells causes and cosmetics.

Marketers with experience abroad have seen France and Britain quickly catch up to West Germany and Sweden in the responsiveness of their populations to environmental marketing, and experts have little doubt the U.S. will soon follow. In mid-November, Procter & Gamble began test-marketing its first domestic product with an explicit environmental claim: Downy Refill comes in a 21½-ounce milk-carton-type container and is intended to be mixed with water in a used plastic Downy bottle to make 64 ounces of fabric softener. Prominently printed on the carton: "Better for the Environment . . . Less packaging to throw away." With a package 75% smaller, Downy Refill costs 10% less than regular Downy. It's too early to gauge the product's success.

For Wal-Mart, environmentalism is "a cause and not a marketing scheme," claims William Fields, the chain's executive vice president for merchandise. The giant discounter in July asked its 7,000 suppliers to provide it with more recycled or recyclable products. About 100 are already in stores, with labels (printed on recycled paper) explaining their supposedly beneficial features. K mart and at least a dozen small to medium-size grocery chains have announced similar programs. Experts suggest Wal-Mart and the others proceed slowly. Overeager green-marketing campaigns in Britain and Canada have been attacked by environmentalists for unsubstantiated or inappropriate claims.

The London-based Body Shop, with 14 outlets in the U.S., puts environmental concerns at its core and in the process finds its way to the green in customers' pockets. The skin- and hair-care stores display literature on ozone depletion next to sunscreens and fill their windows with information on issues like global warming. Every employee is assigned to spend half a day each week on activist work. Customers get discounts if they bring their old bottles back to the store for recycling. In 1988 the chain collected over a million signatures in Britain on a petition asking Brazil's President to save the rain forests. In 13 years the Body Shop has opened 420 stores in 38 countries. Sales for the year ended February 1989 were over $90 million with pretax profits of about 20%.

Make sure your green-marketing claims amount to more than a fig leaf. British Petroleum got flak recently for promoting a new brand of unleaded gasoline in Britain with the claim that it caused "no pollution." It later apologized for what it called an inadvertent error. A plastic grocery bag used by some New York supermarkets says: "This 'Earth Sack' will begin degrading within 3 days of exposure to ultraviolet light . . . and will continue the process until it turns into a nontoxic environmentally safe dust." Scientists believe the statement can be misleading, and in landfills light can be in short supply anyway. Some environmentalists have targeted "degradable plastics" for protest.

In general, the more you tell your customers, the better off you'll be. Procter & Gamble environmental chief Geoff Place visited his brother's family in England recently and found them no longer using several P&G products because of environmental concerns. Later a family member told Place they'd started using Fairy Dishwashing Liquid again because P&G had improved it. In fact the company had simply added a statement on the label saying "Only biodegradable surface active agents are used in this product." That has been true since 1963.

to the list: Educate your customers incessantly. Faced with growing protests over the volume of waste it generates, especially the polystyrene foam packaging used for hot food, the restaurant giant has taken major steps to reduce waste at the source, to recycle what's left, and to explain what it is doing. Just by making its drinking straws 20% lighter, the chain eliminated one million pounds of waste per year. In October, McDonald's began collecting polystyrene waste in 100 New England outlets and recycling it; the company intends to include all 450 regional stores in the plan by March. Customers are asked to put polystyrene containers, such as those for Chicken McNuggets or Big Macs, in special bins. All napkins in U.S. stores are now made from recycled paper, as are carry-out drink trays and office paper at headquarters.

Shelby Yastrow, the company's general counsel and point man on environmental issues, says that since polystyrene is 100% recyclable, it is better for the environment than paper, which theoretically degrades but most commonly ends up in anaerobic landfills—virtually no oxygen gets through—which may instead preserve it for decades. Paper is also significantly bulkier than plastic in most uses, thus creating more waste. "Everything I look at tells me plastic is better," says Yastrow. "I have a little trouble convincing my children or my neighbors, but the scientific community isn't a problem."

To correct the misconceptions of those kids and neighbors and their peers nationwide, the company is embarking on a major educational campaign. McDonald's is describing its efforts and explaining recycling on the paper liners on customers' trays, in advertising, in brochures it hands out in stores, and in mailings to school teachers. That's a lot of describing and explaining: McDonald's serves 18 million customers in the U.S. each day, making its tray liners alone one of the largest of the nation's mass media.

EVEN IF IT IMPROVES public understanding of solid waste, McDonald's will continue to confront one of the nagging realities of the new environmentalism: Grass-roots local groups, many of them misinformed, wield increasing disruptive power. Says David Stephenson, a Boston public relations consultant who specializes in corporate environmental strategy: "The grass-roots groups are concerned about the value of

their homes and the health of their children. That means they are relentless. In general, unlike the mainstream environmental groups, they are not interested in compromise or mediation." McDonald's successfully confronted antipolystyrene picketing at several of its Vermont stores with an aggressive local educational campaign. By the end, local activists were asking that the company convert its paper cold-drink cups to plastic.

ONE LESSON from the company's experience: Don't ever assume you've solved an environmental problem. As knowledge evolves, attitudes change, and so do solutions. McDonald's switched from paper to polystyrene packaging for Big Macs and other sandwiches in 1976 largely because the public was worried about cutting trees and the energy that paper production consumed. As recently as the early Seventies, CFCs, one of today's leading environmental villains, were believed to be a harmless and inert triumph of modern chemistry.

You have to keep looking ahead—way ahead. For gutsy environmental farsightedness, few companies can top Applied Energy Services. The private, Virginia-based power-plant management firm donated $2 million in 1988 for tree planting in Guatemala to compensate for a coal-fired plant it was building in Connecticut. The trees, which of course consume carbon dioxide, are intended to offset the plant's emissions of the gas, which may lead to global warming. Says CEO Roger Sant: "We pride ourselves on being part of the solution, not part of the problem. We weren't trying to do any more than salve our own guilt, I guess." The company expects to couple tree-planting programs with all seven new plants on its drawing boards. Several large outfits have contacted Sant to ask his help in refining similar plans.

One recent weekday afternoon, three men walked out of the Environmental Defense Fund's midtown Manhattan office on their way to have lunch together. On the left was EDF's senior economist. On the right was an environmental expert in the Soviet government. Between them was a businessman, a trader in the nascent enterprise of buying and selling pollution rights. Together that trio forms a picture of how the new environmentalism is shaping up: global, more cooperative than confrontational—and with business at the center. F

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YOU CAN MAKE MONEY IN JAPAN

The market is more open than before. Now it's merely tough. Keys to success include hoards of cash, patience—and a little table pounding. ■ *by Carla Rapoport*

IT'S NOT FAIR. Japan can take over market after market in the U.S., and American companies can't sell anything there. The Japanese can buy Rockefeller Center and half of Los Angeles, but Americans are shut out of whole sectors in Japan, like construction, telecommunications, and cars, right? A verbal swipe at Japan's closed market will get you cheers and applause from college campuses to union halls.

The reality is becoming much different. Years of U.S. pressure has begun to pay off, though the perception has yet to penetrate the American consciousness. "This isn't the same country it was five years ago," says Joel Silverstein, general manager of Brown & Williamson (Japan), importer of U.S.-made Kent and Lucky Strike cigarettes. U.S. companies are starting to take market share not only in the consumer products shown on these pages, but also in semiconductors and financial services.

With scant exceptions, such as rice imports, foreign companies are no longer excluded by law, regulation, or tariff from any area of business in Japan. Americans are not prevented from acquiring Japanese companies or buying real estate.

That doesn't mean you can send boatloads of stuff over and expect it to walk off the docks. "Japan has changed from being a closed market to one that's just tough," says Richard Foyston of Boston Consulting Group's Tokyo office. Adds an American who has spent years in the trenches of the U.S.-Japan trade wars: "There are barriers in Japan in terms of attitudes, not laws. Still, things are definitely getting better. You can do business here if you have enough time and money."

Cultural biases aside, Japan remains a difficult market because many of its sectors, like telecommunications, financial services, and construction, remain heavily regulated. The rules apply to all companies, Japanese included, but the Japanese have the advantage of long-established relationships.

With cash to invest, patience, and a little table pounding, Americans are breaking in. Motorola will soon be selling cellular phone equipment throughout Japan, in part because of pressure from U.S. Trade Representative Carla Hills. Two consortiums, one including Britain's Cable & Wireless and Pacific Telesis, among other U.S. companies, have begun offering discount international telephone service in competition with the government monopoly. Hughes Aircraft is a major investor in JCSat, one of Japan's new satellite communications companies. Ford, Hughes, GE, and others have been busily supplying the country's telecommunications industry.

Japan's clubby construction industry is cracking. Turner Corp. of New York City is building an $86 million Tokyo office block with Kumagai-Gumi, the local construction giant. New York's Tishman Realty & Construction Co. and Japan's Aoki are putting up a $175 million hotel in Osaka.

As a result of more pressure from Washington, a dozen or so public sector projects have been opened to U.S. bidders. Bechtel Group, the huge U.S. construction company, is part of the consortium building a terminal for the $6.1 billion expansion of Tokyo International Airport at Haneda.

It used to take about two years to get a license to do construction work. With help from the U.S. embassy in Tokyo, it

WHAT SOME AMERICAN GIANTS REAP IN JAPAN

COMPANY	SALES* in millions, fiscal 1988
IBM	$8,800
Exxon	$6,700
Mobil	$5,900
Coca-Cola	$3,400
Caltex	$2,600
Du Pont	$791
Eastman Kodak	$750**
Motorola	$750**
Caterpillar	$741
Texas Instruments	$706
Hewlett-Packard	$613
NCR	$536
McDonald's	$535
Amway	$522
Digital Equipment	$510
General Electric	$506
Dow Chemical	$486
Pfizer	$438

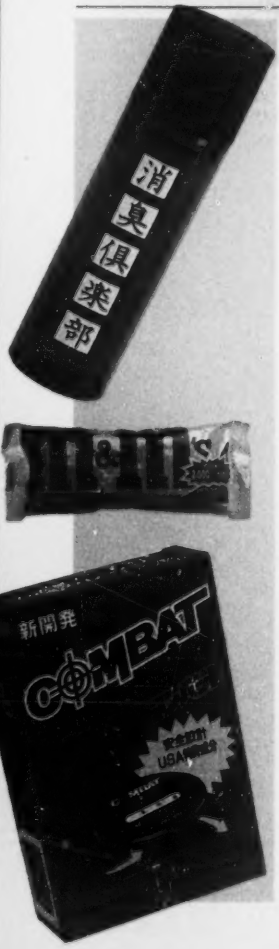
*Adjusted to exclude Japanese share of joint ventures.
**FORTUNE estimate.

SOURCE: ASIA ADVISORY SERVICE

Sales of most U.S. companies in Japan comprise both imports and locally made goods. Profits are high.

TARO YAMASAKI

Amway imports most of what it sells in Japan. Destined for Japanese buyers, nail polish rolls off the line in Michigan.



can be done in three to six months. Says an embassy official: "In this market U.S. government and U.S. business have to work hand in hand. That's the way Japan works—we have to do it too."

THOUGH TOKYO'S financial markets remain more regulated than New York's or London's, foreigners now have as much room to maneuver as the locals. They gained access to the floor of the Tokyo Stock Exchange in 1986, and this spring will be able to manage investment trusts and pension funds. American Express expects to have one million cardholders in Japan by the end of this year. Cards and travel services are growing between 20% and 30% a year. Equitable Life, after just four years in Japan, expects to triple revenues this year to $235 million. "This is a magnificent consumer banking market," says James Collins, chief executive of Citibank's North-Asia division. Then, like a proud parent, he pulls out pictures of the Citicorp Center building, under construction near Tokyo Bay.

Government bond sales are now open to public auctions. Tax breaks enjoyed by the government's huge Postal Saving Bank were eliminated in 1987. Salomon Inc. is among the top ten firms dealing in Japanese government bonds and the top 20 in Japanese equities. Says Salomon's Tokyo chief, Deryck Maughan: "When we increased our capital by $300 million three years ago, everyone asked us what we were doing—showing off, buying someone, or what? We were simply taking the biggest financial markets in the world seriously."

Even in electronics, where the fiercest trade battles have been fought, U.S. companies are gaining. Their share of the Japanese semiconductor market has risen from 8.5% in 1986 to 11.1% for 1989. Wilfred Corrigan, chief executive of LSI Logic and head of the U.S. Semiconductor Industry Association, has commended Japan's recent buying efforts.

Applied Materials, a producer of semiconductor fabrication equipment, made 40% of its $502 million 1989 sales in Japan. This year the company thinks that percentage could rise to 50%. Microsoft, only three years in Japan, occupies a sprawling set of offices in a high-rise in Tokyo's glitzy Shinjuku district. Susumu Furukawa, a 35-year-old computer whiz who is president, says Microsoft had sales of $64 million last year. He expects annual growth of 35% to 45% for the next few years, and he adds, "But that's conservative."

AMERICAN direct investment is growing. It increased to $16.7 billion in 1988, nearly double the amount in 1985, though only about a third of what the Japanese invested in the U.S. In electronics alone, some 360 U.S. companies have offices in Japan and employ more than 72,000 people. That compares with 139 Japanese electronic firms in the U.S. employing about 68,000.

Will any of this affect the trade deficit? A little. U.S. exports to Japan rose 15% in the first 11 months of last year to $44 billion, and Nomura Research Institute expects them to rise at least another 18% in 1990. Nomura forecasts that the trade deficit, which reached a high of $56 billion in 1987 according to U.S. figures, could shortly drop to around $43 billion.

Largely because of the strength of the yen against the dollar, U.S. operations in Japan are enormously profitable. Both sales and profit growth rates are exceeding those at home, or indeed anywhere else.

Mobil and Exxon say they earn about 10 cents a gallon on gasoline sales, vs. an average of 2 cents for the Japanese industry as a whole. IBM Japan is growing faster than the company is in the U.S. and contributes more to profits than any other subsidiary. AIG, the diversified financial giant, earns $20 on every $100 worth of business its Japanese subsidiary writes. This makes the unit AIG's most profitable in the world. And AIG's headquarters in central Tokyo is worth close to $1.5 billion.

Coca-Cola earns more selling soda in Japan than in the U.S. Japanese soft-drink sales account for 21.5% of Coke's worldwide profits, compared with 18.6% for the U.S., says Paine Webber analyst Emanuel Goldman. Profit per gallon, he adds, is four times as high as in the U.S.

According to a survey by the Ministry for International Trade and Indus-

REPORTER ASSOCIATES *Frederick Hiroshi Katayama and Ret Autry*

PRODUCTS PHOTOGRAPHED BY TAKESHI YUZAWA

try (MITI), Japanese corporations had profit margins in 1988 averaging 2.8%. By contrast, foreign companies in Japan had margins of 6.8%, up from 2.3% in 1982. Says Jerald Blumberg, a vice president of Du Pont in Tokyo: "Costs are high here, but we're importing 60% of what we sell from U.S. plants." That gives Du Pont a boost because of the strong yen.

MANAGERS of U.S. companies in Tokyo sometimes sound like spokesmen for the Japanese government. William Franklin, head of Weyerhaeuser Japan and president of the American Chamber of Commerce in Japan, believes America's huge trade deficit with Japan has two origins: declining U.S. competitiveness and Japan's longstanding resistance to imports. "At this point," he says, "it's fair to say they've made a better start on their part of the problem than we have on ours." Adds Edmund Reilly, president of Digital Equipment Corp. Japan: "You'd be surprised. When a group of Americans here get together to talk about problems, we don't discuss unfair trade practices; we end up talking about problems with our home offices." He doesn't want to get specific, but other executives say such problems include overeagerness to pull profits out of Japan instead of investing in expansion.

IBM is the biggest U.S. presence in Japan, but Coca-Cola's success is in some ways more implausible. Both came early, but IBM brought technology the Japanese needed. The technology of making soft drinks hasn't changed much since Dr. Pemberton, an Atlanta pharmacist, invented Coke in 1886, and there were plenty of competitors in Japan who knew how to do it.

Coke has 91% of Japan's cola sales and 57% of the market for all carbonated drinks. Coke managers got there by treating their competitive battle with Suntory, Asahi, Kirin, and other Japanese beverage giants like war. Says Douglas Daft, the Australian who is president of Coca-Cola Japan: "I'd be removed if I started to congratulate myself." Coke is even in the coffee business, with Georgia Coffee, a sugary-sweet drink that is one of the company's fastest-growing and most profitable products.

A serious, somber man, Daft brightens when talking about how fast Japan is changing. "What you have here," he says, "is a consumer capable, willing, and able to spend. Japan is becoming a real consumer society." Does he expect more U.S. competitors? "Can Pepsi and 7-Up become big here? Yes, they can. It's a very, very large market."

Japan's rigid distribution system used to shut out foreigners, but it is now opening. Mars has developed its own sales force instead of relying on Japanese agents. Levi Strauss, the jeans company, has built its own distribution center. Amway, Avon, and Tupperware have managed to transplant their direct-sales methods to Japan. Amway is ranked as the seventh-fastest-growing company in Japan by *Diamond Weekly*, a respected Tokyo business publication. A third of its worldwide sales ($1.9 billion last year) are in Japan. Avon does $277 million a year in sales.

U.S. retailers are moving in. Tower Records will soon have 11 outlets throughout Japan. Toys "R" Us, in an 80/20 joint venture with McDonald's Japan, plans to open six stores by 1992 and 100 within ten years. "We expect they will be our top-selling stores," says Joseph Baczko, Toys "R" Us international chief.

In cigarettes the share of the $24 billion market held by foreign companies has jumped from 2% to 14% since 1985, when the market was fully opened to foreigners. Philip Morris, with 8% to itself, predicts foreigners will capture 30% of the business within five years.

American pharmaceutical companies have about 20% of the $30-billion-a-year Japanese market. Only half of that involves licensing, as an increasing number of U.S. companies switch from royalty deals to wholly owned subsidiaries. Merck's purchase of 51% of Japan's Banyu in 1983 has been a blockbuster success. Sales and profits have more than doubled since the acquisition, and Banyu is one of the fastest-growing drug companies in Japan.

WHILE U.S. FIRMS in the past often entered Japan in partnership with local companies, most prefer to operate today through their own subsidiaries. In addition to pharmaceutical firms, Johnson Wax, Procter & Gamble, Eastman Kodak, and

AMP, a maker of electronic components, is growing rapidly in Japan. Robots abound in this plant southwest of Tokyo.

TAKESHI YUZAWA

To launch its cockroach killer, American Cyanamid ran a contest to find the biggest roach in Japan. This Okinawa woman won a weekend in Tokyo. Combat won a big share of the market.

Mars have all cracked the Japanese market on their own despite the high costs involved.

Kodak did it by acquiring the small individual companies that distributed its products, a painstaking process that took about 18 months. Sales should reach $1 billion this year, a fourfold increase in the past five years. Kodak has 25% of Tokyo's amateur film market, and about 15% of the market nationwide. Since sales of cameras lead to film sales, the company has introduced two new disposable models. Sold in tourist spots, even shrines, these throwaway cameras are good for one roll of film and cost about $10. Although Japanese competitors have been quick to follow with their own versions, Kodak's results so far are gratifying. Railway station kiosk operators, who have traditionally shunned foreign products, are starting to ask for the cameras.

ADVERTISING campaigns that have done well at home have been successfully transplanted to Japan. American Express translated its famous "Do you know me?" campaign into Japanese, keeping Jack Nicklaus and his golf clubs. Coke's "You can't beat the feeling" was altered to "I feel Coke" and is one of the most effective TV ads in Japan. American Cyanamid brought its kooky Largest Cockroach in America contest to Japan last year to launch Combat, its cockroach killer. The company spent $100,000 on the contest and got millions in free TV coverage. A woman from Okinawa produced the biggest roach. She won $700 and a weekend in Tokyo. Combat won 25% of the roach insecticide market in the first four months of sales.

Except for using their U.S. ads, successful American companies in Japan have made themselves as Japanese as possible. Their managers understand that Japanese employees need a sense of mission. Whether he is American or Japanese, the *shacho*, or president, must have a message that he preaches whenever he can, posts on bulletin boards, and prints in company brochures. This message can be almost anything—selling the world's best products or killing the competition or making a better world or all three. Executives at NCR Japan, for example, which expects sales of $1 billion next year, talk constantly of growth, market share, and their latest technology. The office ladies at NCR wear uniforms and serve tea just as at any local company. Are there women managers in the company? "This is a Japanese company," comes the sheepish reply.

AMP Japan, subsidiary of the Pennsylvania electronic component company, is so Japanese in culture that its Japanese PR officials scold Americans for seeking interviews in English. President Mark Komatsu, who was born in Japan but educated in the U.S., can do them either way. The unit's sales have been growing at a compound rate of 15% for the past 20 years.

Surely, you say, Japan's car market remains sealed like a drum. Not true. The final trade barrier, a stiff luxury tax on big cars, was dropped last April. Car imports have jumped from 68,000 in 1986 to 182,000, or about 4.5% of the market, in 1989. Foreign automakers are forecasting a 10% share by 1995. But here's the bad news for Detroit. About 90% of this success has been scored by European automakers.

After getting nowhere with Japanese dealers or import agents, the Europeans began setting up their own dealerships in the early 1980s. BMW, with 120 outlets in Japan, expects to sell 36,000 cars this year, worth $1 billion. Audi, Volkswagen, and Citroën are coming up fast. Faced with this success, Japanese dealers are starting to change their tune. Some Mitsubishi Motors dealers will start selling Mercedes-Benz trucks and buses this year.

LAST SUMMER Ford bought a 34% stake in Autorama, a nationwide dealership network controlled by Mazda. Sales of Ford cars rose from 53,000 in 1988 to 75,000 last year. Most of those cars were made by Mazda in Japan, but the figures also include a sharp rise in direct imports. Bob Paske, managing director of Autorama, expects that sales of Taurus and Probe will increase from 5,500 in 1989 to 8,000 this year. Says Paske: "The only barriers are invisible ones such as attitudes and traditions. The Japanese know that their cars have an international reputation for quality. But we are a young, aggressive company. Our prospects are very exciting."

The number of American companies setting up shop in Japan is growing almost daily, and their successes are no longer the exceptions that prove the rule. Anyone contemplating a move there can go for the Lee Iacocca school of thought: "Japan is a rigged market. If you don't believe that, you're living on another planet." Or he or she can listen to the scores of companies that are making it in Japan. Take James Collins at Citibank: "Barriers? Not a single one that matters. Japan is now one of the most attractive markets in the world." F